

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

RECEIVED

SEP 12 1995

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of )

Telephone Number Portability )

CC Docket No. 95-116  
RM 8535

DOCKET FILE COPY ORIGINAL

COMMENTS OF PAGING NETWORK, INC.

Judith St. Ledger-Roty  
John W. Hunter  
**REED SMITH SHAW & MCCLAY**  
One Franklin Square  
Suite 1100 East Tower  
Washington, DC 20005  
Telephone: 202-414-9237

September 12, 1995

No. of Copies rec'd  
List ABCDE

014

## TABLE OF CONTENTS

Summary .....	i
Statement of Interest .....	2
I. LOCAL NUMBER PORTABILITY HAS ARISEN BECAUSE OF PERCEPTIONS OF BARRIERS TO ENTRY IN TRADITIONAL TWO-WAY INTERACTIVE VOICE COMMUNICATIONS. CONVERSELY, THE PAGING/MESSAGING MARKET IS VIGOROUSLY COMPETITIVE EVEN WITHOUT NUMBER PORTABILITY. ....	3
II. THERE MUST BE A FEDERAL LONG-TERM NUMBER PORTABILITY PLAN. ....	5
III. NO INTERIM WIRELESS NUMBER PORTABILITY IS REQUIRED. ....	8
IV. SPECIFIC FEDERAL GUIDELINES FOR LONG-TERM NUMBER PORTABILITY MUST INCLUDE THE FOLLOWING POINTS. ....	9
A. No Service or Economic Degradation Should Result From Number Portability. ....	10
1. Service .....	10
2. LEC Transmission Network Costs .....	11
B. The Efficiency of Telephone Number Use Should be Preserved. ....	12
C. Costs of Network Number Portability Solutions Should be Borne Equitably. ....	13
D. Portability Plans Should Be Considered Sequentially Based on Their Economic and Other Merit With Geographic Portability Only Considered If Other Plans Do Not Suffice. ....	14
V. CONCLUSION. ....	16

### Summary

Significant issues are at stake for the telecommunications consumer and industry in the adoption and implementation of a number portability plan. The driving force behind an immediate number portability plan is the need for competition and parity in a given market. Paging and messaging markets are already highly competitive. Interim number portability would not bring demonstrative benefits to the paging and messaging markets. In fact, it could adversely affect the quality and price of such services. Interim number portability should thus address the two-way interactive voice marketplace, if needed to address specific problems.

In any number portability plan the Commission adopts, care should be taken to preserve the service quality and price for paging and other services. The Commission should adopt a long-term federal plan that applies to all services and that assures the seamless, cost effective and nondiscriminatory implementation of a plan. The plan should be developed in two steps. In the first, the Commission would adopt specific guidelines for long-term portability and would impose a timetable for development of a plan, by industry, whom it would charge to develop a consensus plan consistent with the Commission's guidelines. In the second step, the Commission would determine the degree to which the proposed standards comply with its guidelines and resolve the outstanding issues needed for a plan.

A federal plan is necessary in order to preclude individual varying results that could frustrate affordable,

seamless, national number portability. It would also preclude the Commission from having to reconcile 50 different number portability solutions, a task which would be economically inefficient and untimely.

The FCC guidelines should be adopted to protect the public interest, encourage improvements to existing telecommunications services and deployment of new services, and assure the continued availability of services on an economical basis. Specifically, the guidelines should require that no service or economic degradation would result from number portability. In the case of paging and messaging services, speed of delivery is critical. The additional network functions required by number portability cannot be allowed to diminish the speed with which paging messages are transmitted. In addition, costs of service cannot increase, particularly in services such as paging where the demand for number portability is not as great as in two-way interactive voice services.

Another guideline should be that the efficiency of telephone number use should be preserved. Some of the interim number portability solutions would require additional numbers at a time when demand is critical. Certainly no long-term plan should include the use of duplicative numbers in order to assure the portability result. Numbers are a resource that we can ill afford to use inefficiently.

A guideline should require that the costs of network number portability solutions be borne equitably. Implementation of a number portability plan will generate additional costs. The

use of a database system should not generate cost requirements that are shouldered by carriers or customers that do not derive any benefit from number portability.

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

RECEIVED

SEP 12 1995

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of )  
 )  
Telephone Number Portability ) CC Docket No. 95-116  
 ) RM 8535

**Comments of Paging Network, Inc.**

Paging Network, Inc. ("PageNet"), on behalf of all of its operating subsidiaries, hereby offers its preliminary comments on certain number portability issues raised by the Commission in its Notice of Proposed Rulemaking in the above-captioned proceeding, FCC 95-284, released July 13, 1995 ("NPRM"). PageNet believes that how number portability is implemented is among the most critical issues facing the industry in this decade; it has the potential to affect the quality of, and price for, messaging services offered by PageNet and its competitors, as well as the quality and price of other services. As set forth below, PageNet urges the Federal Communications Commission ("FCC" or "Commission") to adopt overarching guidelines for the implementation of service provider number portability, and perhaps ultimately all number portability, but to do so in a manner that leaves no doubt that service quality and price for paging and, to the extent other portability plans are implemented, messaging will not be adversely impacted.

### Statement of Interest and Summary of Position

PageNet presently serves approximately 5.4 million subscribers nationwide, making it the largest paging carrier and the largest issuer of telephone numbers in the paging industry. It believes its network to be state-of-the-art; it constantly reevaluates its network equipment and services, based on customer needs, and attempts to meet those needs through technical and pricing solutions. However, the implementation of number portability for wireless carriers has the potential to impact the technical configuration of both the wireline and wireless networks, as well as affect the costs of both the wireline and wireless networks. These will directly affect the manner in which PageNet offers service to the public. As such, it is directly interested in the outcome of this proceeding.

PageNet's comments herein do not attempt to block or stall the implementation of either interim or long-term service provider portability for two-way interactive voice services. They do, however, urge the FCC to adopt interim solutions only for those markets which require it in order to achieve competitive parity. PageNet's comments also urge the Commission to take into account the costs of any number portability plan, and to adopt only that plan or those plans which can be implemented in an economically efficient manner. It would be an extremely troubling result if paging and/or messaging rates were required to be increased in order to allow any form of number portability, a result that could occur if costs are not minimized in particular

because paging/messaging is a low margin/high volume service with low rates to consumers.

They also urge that cost allocation of implementing long-term number portability to be equitable, one such approach being to require all carriers to absorb their own costs. Because competition and the need to create consumer choice in the messaging industry are not the drivers of either interim or long-term number portability, PageNet does not believe it or its subscribers should have to pay these costs through increased network costs and therefore increased rates, above and beyond the substantial costs it will incur in making its own networks compatible with and a participant of local number portability.

**I. LOCAL NUMBER PORTABILITY HAS ARISEN BECAUSE OF PERCEPTIONS OF BARRIERS TO ENTRY IN TRADITIONAL TWO-WAY INTERACTIVE VOICE COMMUNICATIONS. CONVERSELY, THE PAGING/MESSAGING MARKET IS VIGOROUSLY COMPETITIVE EVEN WITHOUT NUMBER PORTABILITY.**

The FCC states, in its NPRM at 3, that local competition issues are driving the advent of local number portability. In general, PageNet concurs with that evaluation, but notes that it is important to make one critical distinction: it is the advent of potential competition in the two-way interactive voice marketplace which is driving number portability. To the very limited extent the paging and/or messaging marketplace is a candidate for number portability, it is because it is part of a larger network of networks, and not because of any lack of vigorous competition in this industry.

The mere size and stature of PageNet today is evidence of the fact that number portability is not necessary in order for



new entrants to succeed in the messaging marketplace. PageNet entered the messaging marketplace in a few markets in 1981, thereafter primarily through internal growth expanding into all of the major markets. The lack of number portability did not prevent PageNet from succeeding in offering consumers a choice of messaging carrier, nor in growing the overall market for its services.

PageNet is not necessarily suggesting that the competitive local exchange carriers ("CLECs") have the same opportunity in the absence of number portability, but it is suggesting that the methods which may be appropriate to promote local competition in two-way interactive voice services are not necessary in order to achieve competition in the paging and messaging services. By the FCC's own admission, competition is thriving in the paging/messaging marketplace. See Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Service, First Report and Order, FCC 95-317 released August 18, 1995, at 24-25, citing Implementation of Section 3(n) and 332 of the Communications Act - Regulatory Treatment of Commercial Mobile Services, Second Report and Order, 9 FCC Rcd 1411, 1468 (1994).

In sum, PageNet recognizes the concerns the regulators have as they move toward local number portability, but those concerns are vastly different than those presented by the vigorously competitive messaging industry.

## **II. THERE MUST BE A FEDERAL LONG-TERM NUMBER PORTABILITY PLAN.**

PageNet commends those state commissions who have actively begun a critical examination of both short-term (interim) and long-term number portability plans. However, there must be a federal plan, adopted by this Commission which assures the seamless, cost effective and nondiscriminatory long-term implementation plan for both the wireline and wireless local exchange industries. Achieving these goals at the federal level will be difficult; achieving them state by state, and then attempting to merge the resulting 50 states' programs will be nearly impossible at least in any sort of economically efficient, timely fashion.

PageNet suggests a two prong approach for long-term number portability, which relies on a combination of industry and regulators. Under PageNet's plan, the FCC through this docket and in reliance on industry comments, would compile appropriate federal guidelines for long term number portability with as much specificity as possible, simultaneous with the imposition of a specific timetable to be imposed on the standards setting organization most involved in the long-term standards setting process to complete their best effort at developing a consensus plan consistent with these guidelines. Secondly, at a specific point in time, the FCC would determine, after notice and comment, the degree to which these proposed standards meet its specific guidelines, as well as determine those outstanding issues on which no consensus could be reached. It would also need to be prepared

to act on any issues which arose in the standards context that needed to be resolved before the standards process could continue.

In PageNet's mind, this approach has certain compelling benefits. In the first instance, PageNet's proposal would assure that the collective technical experts in the industry would devise the technical long-term plan, under the FCC's auspices. Since the collective technical expertise is not resident in any federal or state agency, any technical rules crafted by the regulators will fall short of those crafted by the industry standard setting bodies.

Furthermore, under PageNet's plan standards setting bodies would have the benefits of the FCC's directive as they proceed with their existing work, not at the end of the effort. It would, for example, set forth almost from the beginning the policy guidelines which the FCC believed necessary and reasonable for the proposed standards to meet. This "prior notice" to all parties should serve to put any companies participating in the standards setting process merely to interpose delay status that such attempts are inconsistent with the federal plan. In PageNet's view, this signal is necessary to assist the standards setting bodies in moving standards along to a timely conclusion. At the moment, it is too easy to derail particular approaches or bog down the process in substantial unproductive conversational proceedings precisely because there is no clear federal objective. It would also potentially avoid the substantial loss in time and resources if the FCC developed guidelines after the fact which were inconsistent with the proposed standards.

Further, it would avoid 50 state proceedings, each one of which serves as the dress rehearsal for the next. Most of the industry players would be the same state by state. The consultants hired to express the views of particular segments of the industry would be the same. Only the decision makers would be different and that would likely yield many different results. These results may not be unreasonable in and of themselves, but may nonetheless collectively preclude affordable, seamless, national number portability.

The federal guidelines could serve as notice to the states that these are the minimum guidelines necessary to preserve a federal plan, thereby hopefully avoiding inadvertent clashes between federal and state efforts to implement number portability. This is a result we as an industry cannot afford if number portability is to be an affordable, and therefore potentially achievable goal. For example, PageNet believes that it will have to modify the switches it presently has in place in its own network and understands that the current local exchange wireline network will have to be substantially modified as well. These switches can be most efficiently modified to meet one set of parameters, not a few dozen sets of parameters. In fact, every different parameter is likely to drive up the total cost of equipment modification.

Furthermore, the federal plan as PageNet envisions it would take into equal consideration both wireline and wireless long-term number portability, although not necessarily implementing the two in the same time-frame. PageNet believes that most if not all the

states considering the number portability issues today are considering wireless local number portability only as a potential adjunct to wireline number portability.

This approach is understandable, in particular because the need for consideration arose in the context of competition in wireline services (See Section I, herein, at 3), and only later began to spill over into wireless services. Nonetheless, if the wireless industry is not to be disadvantaged, it is important that both the two-way interactive voice and the messaging segments of the wireless industry be treated, within the long-term local number portability plan, in a reasonable, nondiscriminatory manner. A long-term federal numbering plan has the greater potential to assure that result.

### **III. NO INTERIM WIRELESS NUMBER PORTABILITY IS REQUIRED.**

At least in the paging context, as set forth at Section I, herein, the market is vigorously competitive, and consumers have a diversity in prices and services from which to choose. Not only is that choice available, but consumers exercise that choice. Simply put, there is no ground swell arguing that number portability, on an interim basis, is a requirement in order to achieve competition in the paging/messaging marketplace.

In any event, the economics of interim number portability plans and the resulting detriment to the economics of paging service weigh heavily against interim number portability for messaging. As the NPRM recognizes (at 19, n. 50), the incumbent local exchange carriers are attempting to charge in the range of \$2.00 to \$4.00 per month for every number ported, as well as

nonrecurring costs for the set up of the call forwarding services. These rates are, in many cases, one-half to one-third of the monthly rate for local paging service, and thus would drastically alter the economics of subscribing to paging services, or for that matter, offering paging services which numbers could be ported. This would be a totally unacceptable solution for that segment of the industry, and their customers.

Further, as noted, under some interim portability solutions, there are also modifications to the paging infrastructure which would need to be done, and some period of time necessary to implement those modifications. Neither the modifications nor the costs are necessary, when weighed against what would be accomplished. There is simply no compelling need for interim number portability to be applied to the paging/messaging marketplace.

**IV. SPECIFIC FEDERAL GUIDELINES FOR LONG-TERM NUMBER PORTABILITY MUST INCLUDE THE FOLLOWING POINTS.**

It is essential that the Commission adopts specific guidelines for the implementation of long-term number portability. Such guidelines should be crafted to protect the public interest, foster the deployment of new telecommunications services and improvements to existing services, and assure the continued availability of telecommunications services on an economical basis. The following guidelines, at a minimum, should be adopted by the Commission in any number portability plan it implements.

**A. No Service or Economic Degradation Should Result From Number Portability.**

**1. Service**

The American telecommunications user has become accustomed to a high service standard. Number portability is being proposed by the Commission as a benefit to consumers by providing greater personal mobility and flexibility in the use of telecommunications services and by contributing to the development of competition among service providers. Such perceived public benefit cannot be implemented at the expense of the current level of service. For each type of service, the specific qualities that consumers expect are somewhat different. For paging and messaging services, speed of delivery is preeminent. Consumers rely on the instantaneous communication that paging provides. Those who subscribe to paging services are for the most part people and organizations who are constantly mobile, and have no other readily available, cost-effective means of communication. These include medical services, where doctors, nurses, technicians and paramedics must be in constant and immediate contact to save lives. They also include firemen and other emergency care providers, organ transplant recipients, mothers and fathers needing to be reachable by their children, and household and building repairmen for emergencies.

Number portability will require additional network functions that may add network connect time to any communication, including paging. Since the physical address of the caller and/or the called party is replaced by the virtual address, this requires an inquiry by the ported switch of the service control point database

to determine the virtual address or addresses. In addition, a call with number portability may require the utilization of interexchange carrier transport and switching facilities in order to complete the call that was not needed for local calls. The amount of time for such functions to be performed could be significant in terms of the length of paging and messaging calls. Yet, these functions must occur in a manner that does not introduce measurable delay into call completion.

## **2. LEC Transmission Network Costs**

Service degradation can have a substantial, immediate impact on the costs of providing paging service as well as upon the customer's perception of the quality of the services. Network hold (or transmission) time is one important facet of this issue.

At present, the paging industry uses the LEC network in placing a page for approximately 15 seconds on average. If number portability extends that network hold time by, say, 5 seconds, it could increase the industry's network costs by one-third. Clearly, this is not the intent, but it could be the result unless the database dips are ultimately transparent to the network call flow, or in other words, more or less instantaneous.

This sensitivity to network hold time may be more acute for the paging industry, but it likely exists to albeit lesser degrees with other services as well. The bottom line is that, in implementing number portability, the FCC cannot allow service to be degraded, or the costs of ported service to increase. Of course, this is particularly true for the paging/messaging



industry which may be swept up in number portability, but not a substantial beneficiary of it.

**B. The Efficiency of Telephone Number Use Should be Preserved.**

The interim number portability measures set forth by the Commission would require the utilization of additional numbers, particularly the Remote Call Forwarding proposal. The Commission recognized the critical nature of numbers in the provision of services and the need for their availability. The Commission stated that a nationwide system of numbering is "essential to the efficient delivery of interstate and international telecommunications services." Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois, Declaratory Ruling and Order, FCC 95-19, released January 23, 1995, at 7. The Commission also relied upon the need for making numbers available on an efficient, timely basis for telecommunications service providers in order to facilitate entry to the telecommunications market. Id.

Clearly, the continued utilization on an efficient basis must be paramount even in the context of number portability, and thus no long-term number portability plan should rely on call forwarding, or any other solution that necessarily assigns two telephone numbers to one address. This is true even where, as with the introduction of the new INPAs, we have the benefit of a substantially renewed resource. The fact that the NANP has been "replenished" does not mean that we should squander the resource unnecessarily.

**C. Costs of Network Number Portability Solutions Should be Borne Equitably.**

The FCC's NPRM raises significant issues related to cost recovery associated with long-term number portability, recognizing the possibility that the use of a database to provide number portability will require significant investment in network infrastructure.

The NPRM, for example, asks whether "competing providers of local telephone services and their customers [should] bear the costs of such a database system?" NPRM at 19. PageNet submits that the answer to that question must be no, at least to the extent that the Commission considers paging/messaging carriers to be "competing local exchange providers." As noted at pp.3-4, herein, the direct benefits to long-term number portability will not accrue to nearly the same extent, if at all, to the paging/messaging industry. Therefore, that industry and its customers should not be required to shoulder an expense for which they will derive no sufficient direct benefit.

Further, to impose such costs only on those that compete directly with incumbent LECs (referred to in the NPRM at 19 as "competing providers of local exchange service and their customers") would seem inequitable. It is neither the fault of the incumbent LEC nor new entrant that landline local exchange customers have attributed substantial value to their existing telephone numbers; it is simply the fact. .

**D. Portability Plans Should Be Considered Sequentially Based on Their Economic and Other Merit With Geographic Portability Only Considered If Other Plans Do Not Suffice.**

Each of the number portability plans under consideration has both economic and consumer costs associated with it. PageNet urges the Commission to consider service provider, service, and geographic portability plans, sequentially, in its merits, and evaluate the economics of each weighed against its prospective benefits. As noted at p. 11, herein, costs that must be considered include those imposed on the paging and messaging industries, or other industries, if they are sufficient to effect, even marginally, the economics of those services, or the economics of the subscribers who use them. These costs are very real, and must be included in any evaluation of specific number portability plans to determine if the costs are too high.

Further, the FCC must recognize that some of the proposed solutions will require retrofitting of paging switches, and may require other network modifications, none of which is free to the paging carrier, or ultimately, its customers.

It is PageNet's initial view that the costs escalate as one moves from service provider portability, to service portability to geographic portability. Moreover, it is PageNet's initial view that the network and database costs escalate even with geographic portability, as the geography over which the number ported is increased. Local geographic portability is expensive. It would appear that geographic portability across NPAs increases the

expense, and that portability across state lines would increase it even more.

There are also consumer costs associated with certain plans, most particularly geographic number portability, depending on and becoming more pronounced with the scope of the geography. Implementation of geographic number portability will mean that the virtual address of a given telephone number will not bear the same relationship that it traditionally has for a calling party. Depending on the geographic scope of portability, the number could be next door to the calling party or across the country. Therefore, the calling party may incur costs that it might not anticipate. Under these circumstances, the ramifications to the users of the telecommunications network with number portability could be significant.

In particular, where the geographic scope of the number is beyond the local exchange, the consumers must be educated to such effects before a number portability plan is implemented. Otherwise, residential and business customers will be confused and angry. The expected benefits of number portability will be diminished for the primary group that the plan is designed to help. Therefore, the Commission should require the imposition of consumer safeguards and educational programs as an integral part of any number portability plan that it adopts.

Such a program should include education on the diminution of geographic significance of a number. Although the depletion of Numbering Plan Area ("NPA") codes throughout the country is resulting in the introduction of a significant number of new NPA

codes, many state proceedings seeking plans for new codes bear witness to the continued significance for some people of geographic identification of specific NPA codes. While this identification may be changing, number portability will heighten the necessity for widespread consumer education.

The education program should also address the possibility of increased costs associated with number portability being passed on to the calling and called parties. The costs that each telecommunications carrier will be required to incur to implement number portability must be recovered in some way. Depending on the policies ultimately adopted, the consumer will undoubtedly pay a significant portion of those costs either directly or indirectly. In addition, a call could entail long distance charges or airtime charges, unbeknownst to the calling or called parties. With number portability, the number will not necessarily reveal the location of the called party or the type of service that party has. The users must be made specifically aware of their obligations through an educational program.

## **V. CONCLUSION.**

Interim number portability is not necessary to achieve competition in the paging and messaging markets, because they are highly competitive. Furthermore, as stated herein, the costs associated with interim number portability far outweigh any benefits that might occur. Participation in an interim number portability plan, such as remote call forwarding, could increase paging network costs by a very substantial amount, thereby changing the economics of paging services, if indeed the costs to

be ported (both paging carrier network and LEC network) were to be borne by the paging carriers and their customers. Thus, any interim number portability requirements that the Commission adopts should be applicable only to two-way interactive voice services.

The Commission should adopt federal guidelines for long-term number portability. Those guidelines should protect the service quality and price of messaging services and other services. That plan should assure seamless, cost effective and nondiscriminatory implementation for wireless and wireline services. This federal plan would be developed through a two-step process. First, the Commission would develop guidelines for long-term portability and provide for standard setting organizations to develop a consensus plan. Second, the Commission would reconcile its guidelines with the recommended plan and resolve outstanding issues in the form of a final plan.


The guidelines adopted in the first step of the Commission's process should preclude service and economic degradation, preserve the efficiency of telephone number use, assure that the costs of any plan are the minimum necessary to effectuate the Commission's

and industry's goals assure that costs of portability are shared equitably, and require consumer safeguards and educational programs.

Respectfully submitted,

PAGING NETWORK, INC.

By:

  
Judith St. Ledger-Roty  
John W. Hunter  
REED SMITH SHAW & MCCLAY  
One Franklin Square  
Suite 1100 East Tower  
Washington, DC 20005  
Telephone: 202-414-9237

September 12, 1995